



FIG. 1

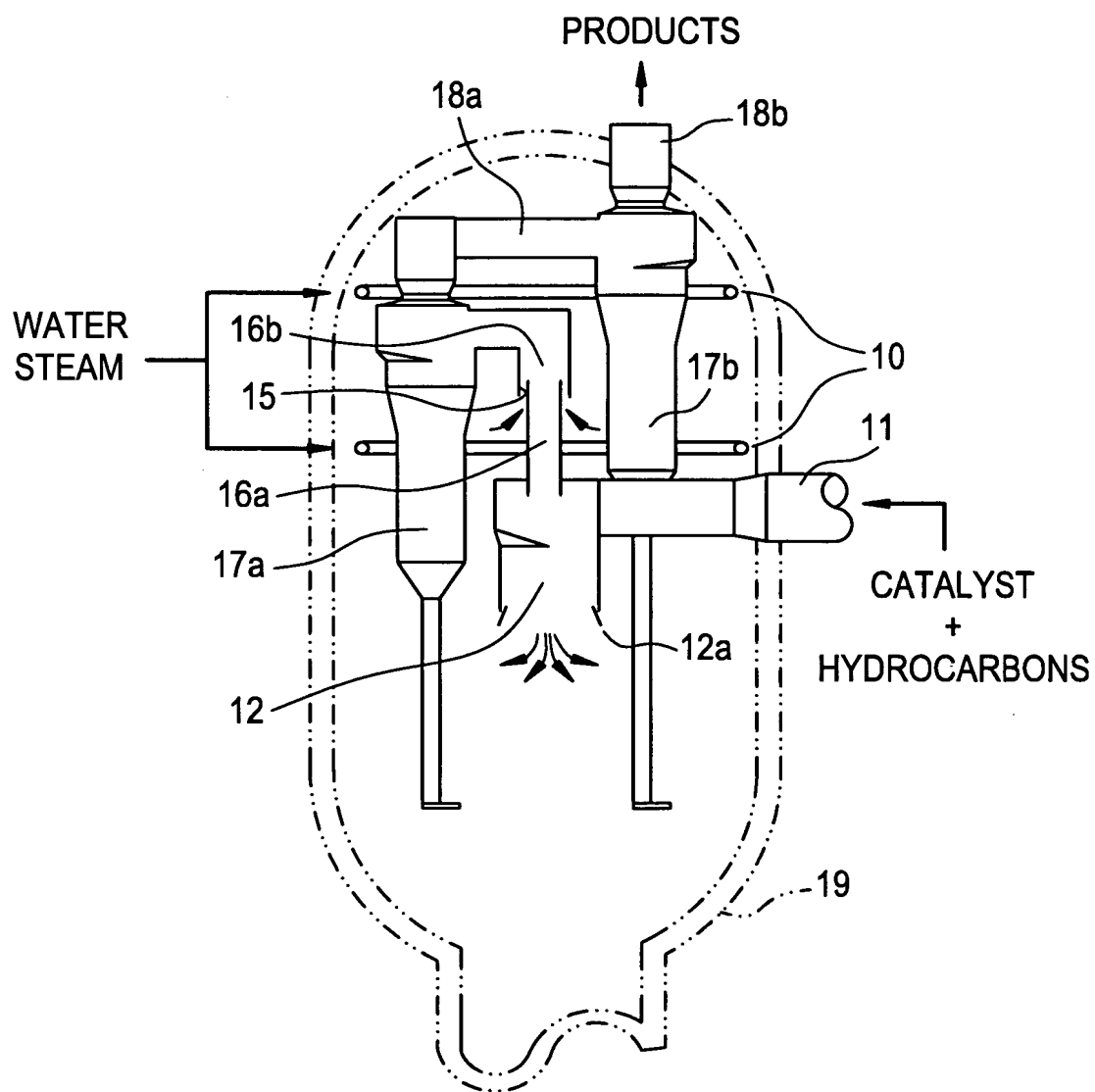


FIG. 2

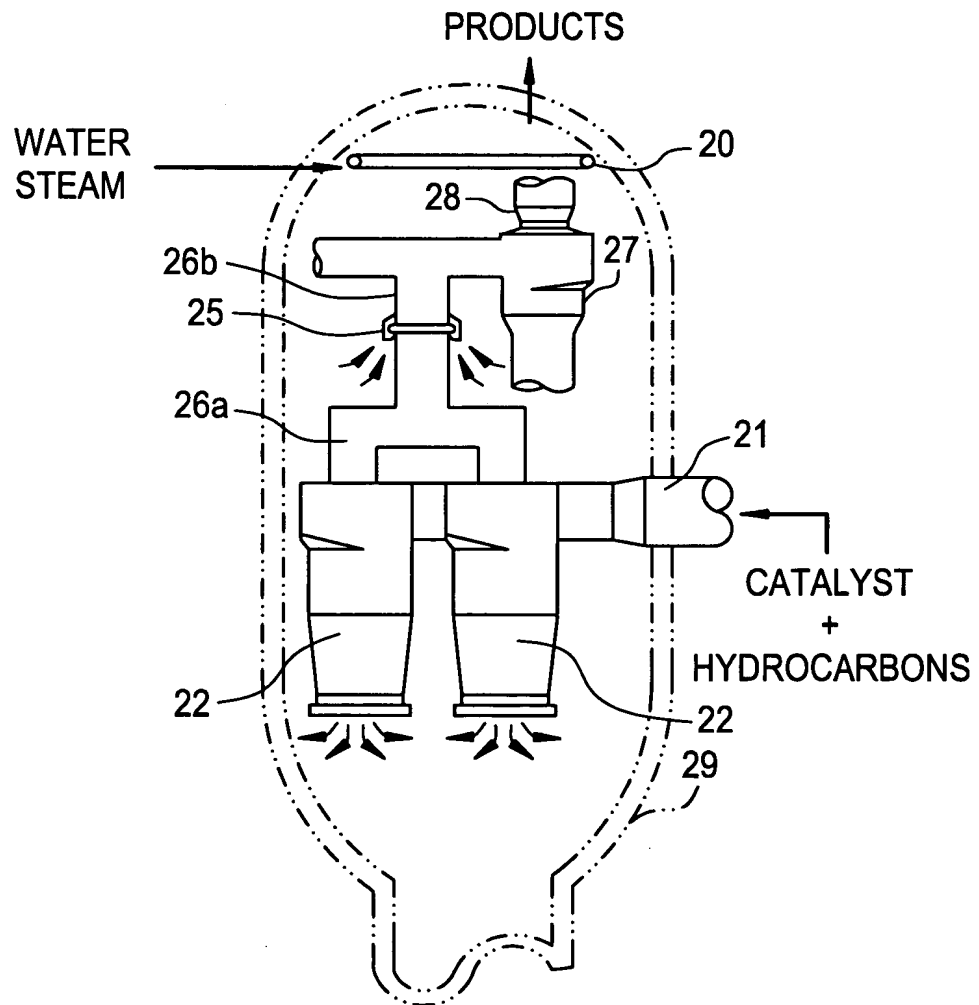


FIG. 3A

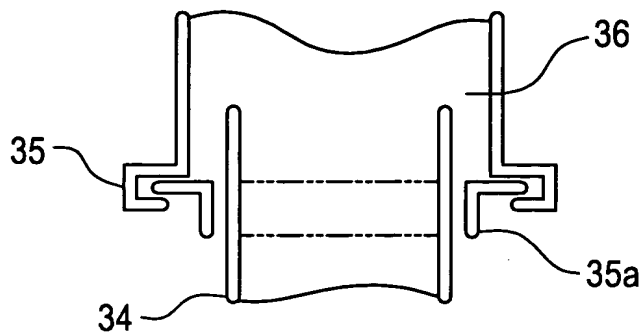
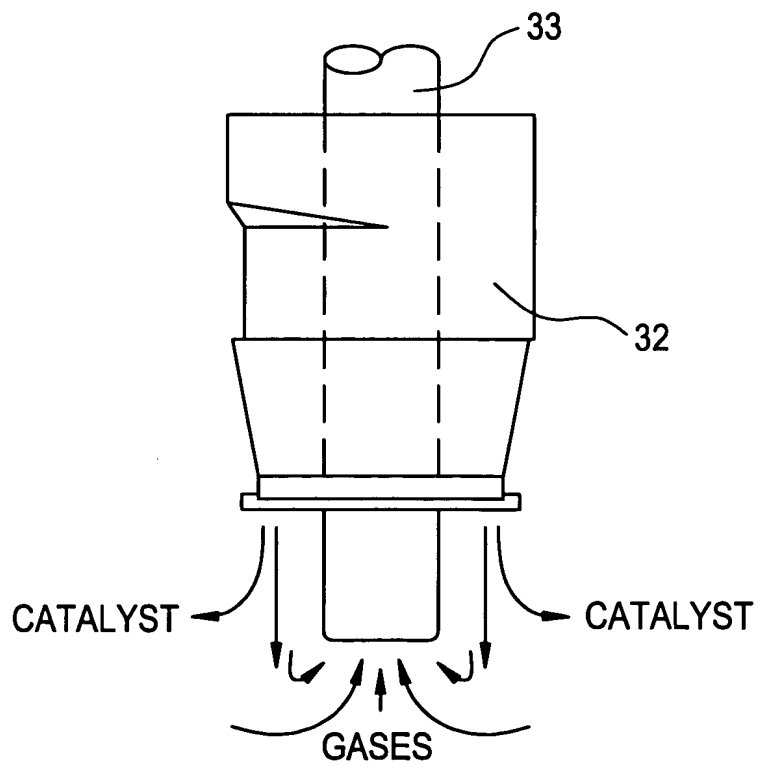


FIG. 3B



FIG. 3C



The diagram illustrates a fluidized bed reactor system. A central vertical column (42) is surrounded by a fluidizing medium. At the top, a distributor (47) is connected to a header (46a) with two inlet ports labeled "WATER STEAM". A side inlet (41b) also feeds into the column. At the bottom, a collector (42a) is connected to a header (46b) with two outlet ports. A central downcomer (43) is located at the bottom of the column. To the right, a horizontal inlet (41a) is labeled "CATALYST + HYDROCARBONS". The top of the column is connected to a header (48) with an outlet labeled "PRODUCTS". The entire reactor assembly is enclosed in a dashed-line boundary (49). A label "10" points to the central column area.

FIG. 5

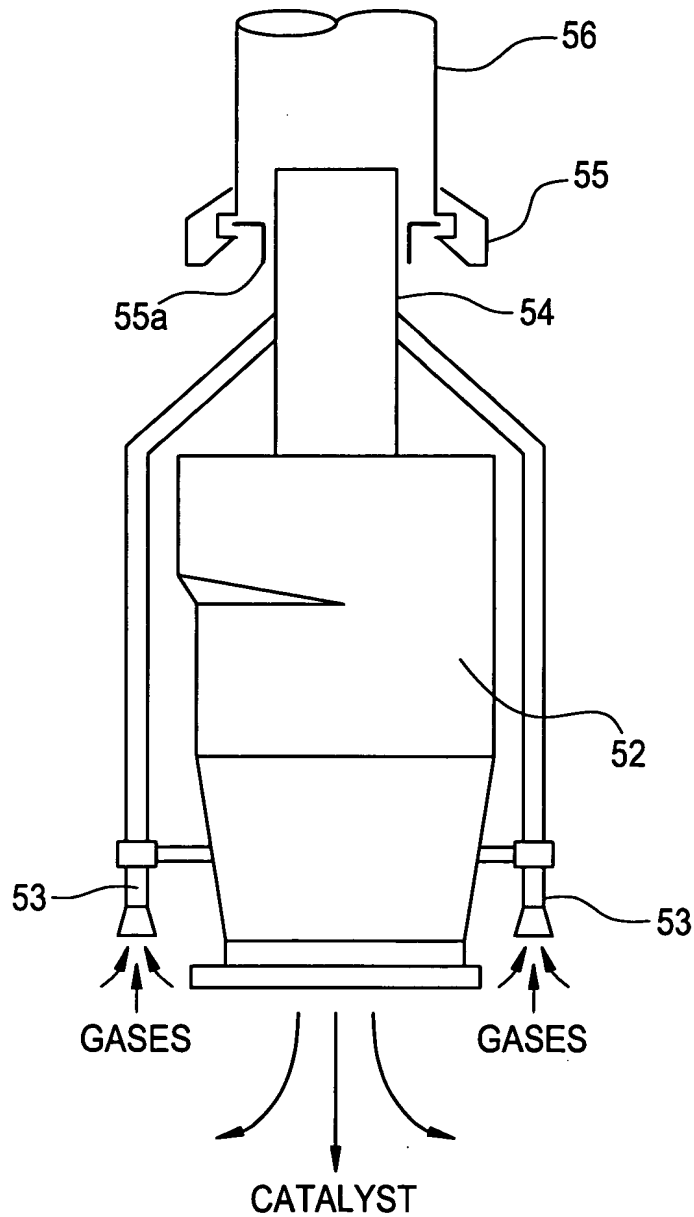


FIG. 6

